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**Remarks**

This Amendment is responsive to the 6/22/06 Office Action. Reexamination and reconsideration of claims 1-29 is respectfully requested.

**Summary of The Office Action**

Claims 24-25 were rejected under 35 U.S.C. §101 because the claimed invention is purported directed to non-statutory subject matter and lack practical application.

Claims 1-4, 10-11, 16 & 24-28 were rejected under 35 U.S.C. §102(b) as being anticipated by Lee et al. (U.S. Pat. No. 5,664,123).

Claims 5-9, 12-15, 17-23, 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. (U.S. Pat. No. 5,664,123).

**Independent Claim 29 Not Addressed in Office Action**

Applicant respectfully submits that the Office Action did not address independent claim 29. Claim 29 was listed as being obvious over Lee on page 4 of the Office Action, but no further reference to claim 29 was made and no reference to its limitations was made. Claim 29 recites different limitations than the other independent claims and thus the rejections of the other claims do not apply. Accordingly, the next action cannot be made final so that the Applicant can have a meaningful opportunity to reply if a rejection is made. Furthermore, claim 29 patentably distinguishes over the references of record and should be allowed.

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**The Present Amendment**

Claim 1 has been cancelled and claim 5 has been rewritten in independent form including the elements from claim 1.

Independent claim 11 has been amended to include the elements from dependent claim 14. Claim 14 is now cancelled.

**35 U.S.C. §101 Rejection**

Claims 24-25 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Office Action recites that "the limitations of claims 24-25 lack practical application" and that "transmission media, as supported by the specification, i.e., [0017], is not a patentable subject matter." (Office Action, page 2).

Applicant respectfully submits that the rejection is improper based upon legal and factual errors and must be withdrawn because no authority from the MPEP, CFR, or Federal Circuit was provided, no substantive law was applied, and no analysis of the actual claim limitations was made. A conclusory rejection is improper and cannot be sustained.

Applicant respectfully submits that there is no authority to support the present rejection. On the contrary, the Patent Office and case law have clearly held that computer-readable medium claims like claims 24 and 25 are statutory.

For example, while this type of 35 U.S.C. §101 rejection may have been valid in limited cases before *In re Beauregard*, 53 F. 2d 1583, 35 USPQ 2d 1382 (Fed. Cir. 1995), and before *in re Lowry*, 32 F. 3d 1579, 32 USPQ 2d 1031 (Fed. Cir. 1994) it is clearly out of place and improper now. The teachings of these cases and the PTO response to the teachings were initially provided to examiners and practitioners alike in the 1996 PTO guidelines for examining computer related inventions. The guidelines as recited in MPEP §2106 provide

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guidance for how to examine computer-readable medium claims. MPEP §2106 distinguishes proper 35 U.S.C. §101 rejections for claims to forms of energy from improper 35 U.S.C. §101 rejections for claims to signals functioning as a computer-readable medium. MPEP §2106 reads, in pertinent parts:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, *per se*, and as such are non-statutory natural phenomena. *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 112-14 (1853). However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature. See *O'Reilly*, 56 U.S. at 114-19; *In re Breslow*, 616 F.2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA 1980). ... In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. (emphases added)

The 1996 guidelines were supplemented with the 1996 PTO training materials related to examining computer related inventions. These training materials discuss, with approval, this claim in US patent 5,568,202 (Koo).

An electronic reference signal in a system for minimizing the effects of ghosts occurring during the transmission and reception of a television signal over a communications path, wherein said reference signal is embodied in a processor readable memory, is non-cyclic, has a substantially flat frequency response within the bandwidth of said communications path and has a plurality of substantially uniform amplitude peaks over a time interval, and wherein a replica of said reference signal is transmitted as part of said television signal and is utilized by a decoder to derive coefficients which are used with at least one filter to remove said ghosts.

Thus, since at least 1996, this type of claim has been regarded favorably by the PTO and has been deemed to be statutory subject matter. The PTO is simply following the law as established by the Federal Circuit in *Beauregard* and *Lowry*. *Beauregard* and *Lowry* established that data structures and computer programs stored on floppy disks were statutory subject matter. The rationale behind the decisions was that a provider of infringing software should be liable as a direct infringer rather than as a contributory infringer. If the data

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structure or computer program on the floppy disk was not statutory, then only the user of the software would be a direct infringer. The user could end up as an unwitting infringer while the knowingly infringing provider goes free. Thus, patent owners would be forced to sue unwitting infringers for direct infringement to be able to get to the contributory infringer. If the disk were not an infringing article of manufacture and the disk was provided from outside the United States then the provider might not have even been liable for contributory infringement since they would not have made, used, sold, or imported an infringing article. This is inequitable and thus the Federal Circuit acted, making programs and data structures embodied in computer-readable mediums statutory subject matter.

Since Beauregard and Lowry, propagated signals have largely replaced floppy disks for software distribution. Thus, the Examination guidelines analogize with approval a propagated signal and a Beauregard claim (see 1996 guidelines, claim 13) (See also, Koo). The signal claim (transmission media) is directed to a manufactured transient phenomenon, like an electrical, optical, or acoustic signal that is more than just a perturbation. The manufactured transient phenomenon allows the transmission of computer executable instructions in the same way that the floppy disk of Beauregard and Lowry allow the transmission of computer executable instructions. Therefore, claim 24 is statutory subject matter, as determined by case law and PTO guidelines, and the 35 U.S.C. §101 rejection should be removed.

Further more, MPEP §2106 (IV)(B)(1)(a) reads:

A claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. (emphasis added)

In this application the rejected claims concern a computer readable medium.

MPEP §2106 (IV)(B)(1)(c) reads:

A signal claim directed to a practical application of electromagnetic energy is statutory regardless of its

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**transitory nature.** See O'Reilly, 56 U.S. at 114-19; In re Breslow, 616 F.2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA 1980). (emphasis added)

In this application the rejected claims concern a computer-readable medium that can provide processor executable instructions, which is a practical application of electromagnetic energy. Thus, following MPEP §2106(IV)(B)(1), the claims are statutory and this rejection should be withdrawn. Nothing in the Interim Guidelines supercedes this settled case law.

The Interim Guidelines specifically address signal claims. Annex IV, Computer-Related Nonstatutory Subject Matter includes section (c), titled Electro-Magnetic Signals. This section reads, in pertinent parts:

It does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101. ... A claimed signal has no physical structure, **does not itself perform any useful, concrete and tangible result** and, thus, does not fit within the definition of a machine. (emphasis added).

This reasoning is flawed. The claimed signals do perform a useful, concrete (reproducible), and tangible (detectable, physical) result. The claimed signals carry computer executable instructions from one point (e.g., local computer) to another point (e.g., remote computer) in a repeatable, detectable, and useful manner. When received, the claimed signals transform the receiving machine into a newly programmed machine. Thus, all prongs of the "practical utility" test are met, making the claimed signals statutory subject matter.

Although not cited, Applicant assumes that the basis for the §101 rejection is the Interim Guidelines for Subject Matter Eligibility dated 22 November 2005. Applicant notes that the U.S. Patent Office has stated that the Interim Guidelines are not law. The U.S. Patent and Trademark Federal Register/Vol. 70, No. 243/Dec. 20, 2005/Notices states under the "Request for Comments on the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" in the third column, lines 57-66:

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"The Patent Subject Matter Eligibility Interim Guidelines do not constitute substantive rule making and hence do not have the force and effect of law....Rejections will be based upon the substantive law..." [Emphasis Added]

As such, simply citing to the Interim Guidelines does not satisfy the obligations for establishing a proper §101 rejection. There must be some articulated reasoning with some rational underpinning to support the legal conclusion. No substantive law has been cited and no rationale has been articulated to support the rejection. The rejection cannot stand and should be withdrawn.

Additionally, the Interim Guidelines caution the Examiner not to strictly apply the "article of manufacture" test. For example, Section IV, subsection A, instructs the Examiner that:

Congress chose the expansive language of 35 U.S.C. Sec. 101 so as to include "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). ... [Thus], the question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to ... but rather on the essential characteristics of the subject matter, in particular, its practical utility.

In present claims 24-25, the practical utility is programmatically configuring a port mode option to change an operating mode of the port. Applicant fails to see how this cannot be considered a practical utility or how it can lack "practical application" as the Office Action states, since it allows operating modes of a port to be easily changed. Thus, Applicant respectfully requests that the §101 rejection be withdrawn.

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**The Claims Patentably Distinguish Over the References of Record**

**Claims 5-9, 12-15, 17-23, 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. (U.S. Pat. No. 5,664,123)**

**Independent Claim 17**

Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. (U.S. Pat. No. 5,664,123). The rejection of claim 17 does not address each limitation of the claim but rather refers to previous rejections and takes "Office Notice" for the claimed graphical user interface element.

MPEP §2144.03 speaks directly to "Official Notice". This section counsels that only "in limited circumstances is it appropriate for an examiner to take official notice of facts not in the record or to rely on 'common knowledge' in making a rejection." MPEP §2144.03 This section specifically warns that "such rejections should be judiciously applied." MPEP §2144.03 Applying "Official Notice" to reject 14 of 29 claims is not "judiciously applying" this technique. For this additional reason these obviousness rejections are improper and should be removed.

Even if Lee was modified with a reference that teaches a graphical user interface, the combination would still fail to teach or suggest all limitations of claim 17. In particular, claim 17 recites:

"a graphical user interface configured to allow a user to select a port configuration for the port including a powered mode and a non-powered mode"

Lee (modified with a GUI) still fails to teach or suggest the entire claimed feature. Instead, Lee teaches switching between a standard communications mode and a bus communications mode (see figure 3, "standard communications" block 340/352 and "bus communications" block 360/372). Additionally, Lee explains:

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“...a first mode of operation provides communications utilizing standard serial communications protocols...” (Lee column 1, lines 42-43) and

“...a second mode allowing an external device to be directly communicated to the data bus of the micro control system in a parallel manner.” (Lee column 1, lines 45-46)

Although the second mode has a by-product of supplying power, it is identified as a “bus communications” mode, not a powered mode. Therefore, there is no teaching or suggestion from Lee that “a powered mode” and “a non-powered mode” would be provided as selectable options to allow a user to select such options. The options taught by Lee are a “standard communications” mode and a “bus communications” mode. Accordingly, combining Lee with a GUI would still fail to teach or suggest the graphical user interface with the specific selectable modes as recited in claim 17.

Furthermore, Lee fails to mention any feature that allows a user to select the mode of operation. Upon review of Lee, Lee appears silent as to how the system determines which mode to initiate. At best, column 3, lines 54-61 state “...where an external device is connected to the connector 26...thereby allowing the additional three lines to [be] switched...” This description appear to imply that the system determines to initiate the bus communications mode in response to an external device being connected. Thus, one of ordinary skill in the art would find no teaching or suggestion from Lee that the modes of operation are user selectable.

In response to the Office Action’s basis for motivation on page 6, which states that a “GUI is not required, but desirable at a higher cost”, Applicant respectfully submits that in many computer systems such a GUI is not desirable. For example when dealing with system configurations like the modes of operation of Lee, it may not be desirable to allow a user a way to make errors and wrongly configure the system. Therefore, the motivation to provide this type of feature does not exist. Thus, without an actual teaching or suggestion from Lee of a GUI with selectable mode options, it cannot be assumed that it would be an obvious modification to Lee. Accordingly, the requisite teaching, suggestion, or motivation to



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modify Lee as proposed in the Office Action does not exist and a prima facie obviousness rejection has not been established. The proposed modification appears to be more like hindsight reconstruction rather than a proper obvious modification.

Since claim 17 recites features not taught or suggested by the reference, claim 17 patentably distinguishes over the reference. Accordingly, dependent claims 18-23 also patentably distinguish over the reference and are in condition for allowance.

Independent Claim 11

Claim 11 has been amended to include the elements of dependent claim 14. Thus the 103 rejection of claim 14 would presumably be applied to claim 11. Claim 11 now recites "displaying port configuration options..." and "allowing a user to made a configuration selection..." These type of features have been explained above under claim 17. Based on the explanations, Lee fails to teach or suggest these features and fails to teach or suggest claim 11. Thus, claim 11 patentably distinguishes over the references of record. Accordingly, dependent claims 12-13 and 15-16 also patentably distinguish over the reference and are in condition for allowance.

Independent Claim 5 (and claims 12 and 13)

Claim 5 was rejected using "Official Notice" that it would be obvious to use the ring/data carrier circuits as recited in the claims. Applicant respectfully submits that a prima facie obviousness rejection has not been established. The Official Notice states that ring detector and data carrier circuits are commonly known. However, then the rationale leaps to a conclusion that such circuits can be configured with the claimed mode controller to change functionality and switch between powered and non-powered modes. There is no teaching or suggestion from Lee or any other reference of that such a configuration is obvious. Without such a reference, the rejection is improper and must be withdrawn. The Official Notice fails to provide this type of teaching and thus cannot be relied upon to establish a proper rejection.

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Since claim 5 recites features not taught or suggested by the references, claim 5 patentably distinguishes over the references. Accordingly, dependent claim 2-4 and 6-10 also patentably distinguishes over the reference and are in condition for allowance.

**Claims 1-4, 10-11, 16 & 24-28 were rejected under 35 U.S.C. §102(b) as being anticipated by Lee et al. (U.S. Pat. No. 5,664,123)**

Independent claim 1 has been cancelled and independent claim 11 has been amended. Thus, the §102 rejection is now moot with respect to these claims and their dependent claims (e.g. claims 1-4, 10-11, 16).

**Independent Claim 24**

Claim 24 was rejected under 35 U.S.C. §102(b) as being anticipated by Lee et al. (U.S. Pat. No. 5,664,123). The rejection of claim 24 is conclusory based on the rationale applied to the rejections of claims 1-4, 10-11 and 16. Thus, the actual limitations of claim 24 were not addressed.

Applicant respectfully submits that claim 24 recites limitations not found in claims 1-4, 10-11 and 16. Therefore, the conclusory rejection does not establish a proper §102 rejection of claim 24 and the rejection should be withdrawn.

Looking to the language of claim 24, it recites processor executable instructions that operate to “providing a port mode option that indicates whether a port is to be in a powered mode”. Lee fails to teach or suggest this feature since a port mode option is not provided. Instead, Lee apparently teaches that the mode is switched when an external device is connected to the connector 26 (see Lee, column 3, lines 54-61), and not by a provided option. Thus, no options are provided and none are taught or suggested.

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Furthermore, claim 24 recites "programmatically configuring the port mode option based on a user selection". Lee fails to teach or suggest user selections and makes no mention of programmatically configuring a port mode option based on a user selection. This was also discussed under claim 17 above. Therefore, Lee fails to anticipate each and every limitation is claim 24 and fails to support the §102 rejection. Thus, the rejection must be withdrawn.

Since claim 24 recites features not taught or suggested by the reference, claim 24 patentably distinguishes over the reference. Accordingly, dependent claim 25 also patentably distinguishes over the reference and are in condition for allowance.

Dependent Claim 25 (and 6-8 and 23) Port Mode Indicator

The Office Action on page 5 (section g) takes Official Notice that monitoring and displaying are well known. However, no teaching or suggestion has been cited that makes obvious a port mode indicator or displaying an indicator that represents the port mode as claimed. Lee fails to mention this type of feature. Therefore, a proper obviousness rejection has not been established and the rejection cannot stand.

Furthermore, claim 25 was rejected under §102 on page 4 but displaying was addressed under the §103. Therefore, the §102 rejection of claim 25 is improper and must be withdrawn. Also, claim 25 was not cited under the §103 rejection.

If a §103 rejection is applied to claim 25 in the next action, this would amount to a new grounds of rejection on an unamended claim and thus the next action cannot be made Final.

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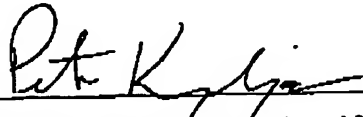
Independent Claim 26

Claim 26 recites a mode controller means for configuring the port between a powered mode and a non-powered mode in accordance with a port configuration that is programmatically selectable in response to a user selected option. As explained previously, Lee fails to teach or suggest changing port configurations by a user and thus fails to teach or suggest a port configuration that is programmatically selectable in response to a user selected option. Thus, claim 26 is now allowable.

Conclusion

For the reasons set forth above, claims 2-13 and 15-29 patentably and unobviously distinguish over the references and are allowable. An early allowance of all claims is earnestly solicited.

Respectfully submitted,



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